WHAT IS CLAIMED IS:

1. A laser microscope, which irradiate a sample with a laser light constituted of a plurality of emission wavelengths through an objective lens, and detecting a fluorescent light from the sample, said laser microscope comprising:

a spectral resolution section configured to spectrally resolve said laser light;

a light receiving element array configured to receive the laser lights spectrally resolved by the spectral resolution section; and

a controller configured to receive an output signal of the light receiving element array and controlling said laser light for each of said emission wavelengths.

2. The laser microscope according to claim 1, wherein said spectral resolution section is any one selected from a group including of a prism, a diffraction grating, and a beam splitter.

3. The laser microscope according to claim 1, wherein said light receiving element array comprises either one of a split photodiode and a solid-state image sensing device.

4. The laser microscope according to claim 1, further comprising an optical fiber for guiding said laser light into a laser microscope main body.

5. The laser microscope according to claim 1,

further comprising an optical fiber for guiding said laser light into a laser microscope main body, wherein said spectral resolution section and said light receiving element array are disposed on a light emission side of said optical fiber.

6. The laser microscope according to claim 1, wherein said controller receives the output signal of said light receiving element array and simultaneously controls respective light intensities of the plurality of emission wavelengths of said laser light to be constant.

7. The laser microscope according to claim 1, wherein said controller comprises:

a control unit configured to receive the output signal of said light receiving element array and outputting a control signal for simultaneously setting respective light intensities of the plurality of emission wavelengths of said laser light to be constant; and

an acousto-optical element, disposed on an optical path of said laser light, configured to receive said control signal outputted from said control unit and setting the respective light intensities of the plurality of emission wavelengths of said laser light to be constant.

8. The laser microscope according to claim 1, wherein a converging lens disposed between said

spectral resolution section and said light receiving element array and configured to converge the spectrally resolved laser lights on said light receiving element array for the respective emission wavelengths.

9. The laser microscope according to claim 1, further comprising a beam splitter configured to split a part of said laser light and guiding the part into said spectral resolution section.

10. A laser microscope, which irradiate a sample with a laser light constituted of a plurality of emission wavelengths through an objective lens, and detecting a fluorescent light from the sample, said laser microscope comprising:

an optical fiber configured to guide said laser light;

a collimator lens configured to collimate said laser light guided by the optical fiber;

a beam splitter configured to split a part of said laser light collimated by the collimator lens;

a spectral resolution section configured to spectrally resolve said laser light split by the beam splitter;

a converging lens configured to converge the laser light spectrally resolved by the spectral resolution section;

a light receiving element array configured to receive the laser light converged by the converging

lens; and

a controller configured to receive an output signal of the light receiving element array and controlling said laser light for each of said emission wavelengths.

11. The laser microscope according to claim 10, wherein said collimator lens, said beam splitter, said spectral resolution section, said converging lens, and said light receiving element array are formed into one block, and the block is constituted to be attachable/ detachable with respect to a main body of said laser microscope.